

What is claimed is:

1. A semiconductor device comprising:
 a first substrate;
 a first heatsink plate connected to said
first substrate;
5 a second substrate having main and rear
surfaces, said rear surface of said second
substrate being connected to said first heatsink
plate;
 a semiconductor chip having a main surface
10 bonded to said main surface of said second
substrate;
 a second heatsink plate connected to a rear
surface of said semiconductor chip.

2. The semiconductor device according to claim
1, further comprising:
 a first pad coupled to a rear surface of
said first substrate; and
5 a second pad coupled to said main surface
of said second substrate to be electrically
connected to said semiconductor chip,
 wherein said first substrate includes a
first interconnection therethrough connected to
10 said first pad,
 wherein said second substrate includes a
second interconnection therethrough connected to

said second pad, and

wherein said first heatsink plate includes
15 a via contact providing an electrical connection
between said first and second interconnections.

3. The semiconductor device according to claim
1, wherein said first heatsink plate includes:

a body portion disposed between said first
and second substrates;

5 a side portion connected to said body
portion to form an edge therebetween.

4. The semiconductor device according to claim
3, wherein said side portion is perpendicular to
said body portion.

5. The semiconductor device according to claim
3, wherein said first heatsink plate further
includes an upper portion connected to said side
portion.

6. The semiconductor device according to claim
5, wherein said upper portion is perpendicular to
said side portion.

7. The semiconductor device according to claim
5, wherein said second heatsink plate is

connected to said upper portion.

8. The semiconductor device according to claim 2, wherein said first and second heatsink plate are connected to each other to form an enclosure around said semiconductor chip.

9. A fabrication method of a semiconductor device comprising:

coupling a rear surface of a first heatsink plate to a main surface of a first substrate;

5 coupling a rear surface of a second substrate to a main surface of said first heatsink plate;

flipchip bonding a semiconductor chip onto said main surface of said second substrate;

10 coupling a second heatsink plate to a rear surface of said semiconductor chip.

10. The method according to claim 9, further comprising:

folding said first heatsink plate on an edge to form body and side portions within said first heatsink plate, said body portion being
5 disposed between said first and second substrates.

11. The method according to claim 10, further

comprising:

folding said first heatsink plate on
another edge to form upper portions connected to
5 said side portions within said first heatsink
plate.

12. The method according to claim 11, further
comprising:

coupling said second heatsink plate to said
upper portions.

13. The method according to claim 12, wherein
said first and second heatsink plates form an
enclosure around said semiconductor chip.